



SEQUENCE LISTING

<110> Polverino, Anthony J.
Luethy, Roland

<120> Secreted Epithelial Colon Stromal-1 Molecules and Uses
Thereof

<130> 00-450-A

<140> 09/724,000

<141> 2000-11-28

<150> 09/599,087

<151> 2000-06-21

<160> 22

<170> PatentIn Ver. 2.0

<210> 1

<211> 744

<212> DNA

<213> Mus musculus

RECEIVED

MAR 05 2003

TECH CENTER 1600/2900

52

<220>
<221> CDS
<222> (38)..(274)

<220>
<221> sig_peptide
<222> (38)..(109)

<400> 1
gotttctctccc taggcgtgag actccggctc cttcact atg aga ctt cta gcc ctt 55
Met Arg Leu Leu Ala Leu
1 5

tcc ggt ctg ctc tgc atg ctg ctc ctc tgt ttc tgc att ttc tcc tca 103
Ser Gly Leu Leu Cys Met Leu Leu Leu Cys Phe Cys Ile Phe Ser Ser
10 15 20

gaa ggg aga aga cat cct gcc aag tcc ttg aaa ctc agg cgc tgc tgt 151
Glu Gly Arg Arg His Pro Ala Lys Ser Leu Lys Leu Arg Arg Cys Cys
25 30 35

cac cta tct cct aga tcc aag ctg aca acc tgg aaa gga aac cac aca 199
His Leu Ser Pro Arg Ser Lys Leu Thr Thr Trp Lys Gly Asn His Thr
40 45 50

agg ccc tgc aga ctc tgc aga aac aag cta cca gtc aag tca tgg gtg 247
Arg Pro Cys Arg Leu Cys Arg Asn Lys Leu Pro Val Lys Ser Trp Val
55 60 65 70

gtg cct ggg gct ctc cca cag ata tag ggcctcctcc gccagatga 294
Val Pro Gly Ala Leu Pro Gln Ile
75

agcgttgatg cccagatgtg gagacaccag aagcatacac actatgttgc cttgcccctt 354
 gccaatgagc tgtgacactg gaatgcttca cttcagacat cagggcggat ggattgcaga 414
 attccaagtc ctcatccaa aggtgtcacc aaccttcaga gtcactaagg tccaggctca 474
 gccacaagt caccatggct cctccagagt aaaagtccaa gattccacct gtgggagcta 534
 cagatccaga gactttcaag ctgactagag tgcagagaag caagacctca gtgtgatcag 594
 ccgagactac agcatcttgg gaaccctcag tcagcccaa acccctaaca cttaccact 654
 ggtctccaaa ccaacacctg taacttccta atgaaatcat caggaggata ccaaagaaa 714
 taaaccataa atcagcatac acactaaaaa 744

<210> 2
 <211> 78
 <212> PRT
 <213> Mus musculus

<400> 2
 Met Arg Leu Leu Ala Leu Ser Gly Leu Leu Cys Met Leu Leu Leu Cys
 1 5 10 15
 Phe Cys Ile Phe Ser Ser Glu Gly Arg Arg His Pro Ala Lys Ser Leu
 20 25 30
 Lys Leu Arg Arg Cys Cys His Leu Ser Pro Arg Ser Lys Leu Thr Thr
 35 40 45
 Trp Lys Gly Asn His Thr Arg Pro Cys Arg Leu Cys Arg Asn Lys Leu
 50 55 60
 Pro Val Lys Ser Trp Val Val Pro Gly Ala Leu Pro Gln Ile
 65 70 75

<210> 3
 <211> 54
 <212> PRT
 <213> Mus musculus

<400> 3
 Arg Arg His Pro Ala Lys Ser Leu Lys Leu Arg Arg Cys Cys His Leu
 1 5 10 15
 Ser Pro Arg Ser Lys Leu Thr Thr Trp Lys Gly Asn His Thr Arg Pro
 20 25 30
 Cys Arg Leu Cys Arg Asn Lys Leu Pro Val Lys Ser Trp Val Val Pro
 35 40 45
 Gly Ala Leu Pro Gln Ile
 50

<210> 5
 <211> 81
 <212> PRT
 <213> Homo sapiens

<400> 5
 Met Arg Leu Leu Val Leu Ser Ser Leu Leu Cys Ile Leu Leu Leu Cys
 1 5 10 15
 Phe Ser Ile Phe Ser Thr Glu Gly Lys Arg Arg Pro Ala Lys Ala Trp
 20 25 30
 Ser Gly Arg Arg Thr Arg Leu Cys Cys His Arg Val Pro Ser Pro Asn
 35 40 45
 Ser Thr Asn Leu Lys Gly His His Val Arg Leu Cys Lys Pro Cys Lys
 50 55 60
 Leu Glu Pro Glu Pro Arg Leu Trp Val Val Pro Gly Ala Leu Pro Gln
 65 70 75 80
 Val

<210> 6
 <211> 57
 <212> PRT
 <213> Homo sapiens

84

<400> 6
 Lys Arg Arg Pro Ala Lys Ala Trp Ser Gly Arg Arg Thr Arg Leu Cys
 1 5 10 15
 Cys His Arg Val Pro Ser Pro Asn Ser Thr Asn Leu Lys Gly His His
 20 25 30
 Val Arg Leu Cys Lys Pro Cys Lys Leu Glu Pro Glu Pro Arg Leu Trp
 35 40 45
 Val Val Pro Gly Ala Leu Pro Gln Val
 50 55

<210> 7
 <211> 77
 <212> PRT
 <213> Rattus norvegicus

<400> 7
 Met Arg Leu Leu Thr Leu Ser Gly Leu Phe Phe Met Leu Phe Leu Cys
 1 5 10 15
 Leu Cys Val Leu Ser Ser Glu Gly Arg Lys Arg Pro Ala Lys Phe Pro
 20 25 30

Lys Leu Arg Pro Arg Cys His Leu Ser Pro Arg Ser Lys Pro Ile Thr
35 40 45

Trp Lys Gly Asn His Thr Arg Pro Cys Arg Pro Cys Arg Lys Leu Glu
50 55 60

Ser Asn Ser Trp Val Val Pro Gly Ala Leu Pro Gln Ile
65 70 75

<210> 8
<211> 4159
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (160)..(169)

<220>
<221> unsure
<222> (3884)..(3893)

<220>
<221> exon
<222> (1)..(69)

<220>
<221> exon
<222> (2627)..(2725)

62
4
<220>
<221> exon
<222> (4079)..(4159)

<400> 8
atg agg ctt cta gtc ctt tcc agc ctg ctc tgt atc ctg ctt ctc tgc 48
ttc tcc atc ttc tcc aca gaa ggtagggcag ccccagggt gcagatccct 99
gagcaggatt tcagcatctg ggaagactct gatcaggatt tgttggaggg caggccttgg 159
nnnnnnnnnn cgcgcgtact tccagccccg tggatgaagac gaaagagggc tctttctcct 219
gaacctatag gtttggggct caggactgcc tgcaggtggc ttgggggttc cattcacagc 279
ccctgcaccc ccaaatacat acccagccta agtaaagtgg tgtgttcgcc atgcaaacac 339
acatacaacc tctcagctag attactgtgc ttaagtcta cctatctaga atttctggag 399
ccattctctt gtacttgtgt catgcttgga acagagtaaa ttagtggttg gcaaatgaat 459
acattaatta gtagaccatc taagtctgaa catcccaaaa cctcatgccc agaaaatatc 519
catgagcagc tgaaatgaag gtgtgtgtgg tagggaggtg gggatatgtt atgcatgttt 579
agaaggggac accatctttt tacctctata gatatgaata tttagctctc ttgccctttt 639

ttcttttttc tttttttttt tttttttgag atggagtcct gctctgtcac ccaggctgga 699
 gtgcagtggc gctatctcag ctactgcaa tctccgcctc ctgggttcaa gcaattctct 759
 gcctcagcct cccaagtagc tgagattaca ggtgccacc accaagccca gctaattttt 819
 gtatttttag tacagacagg tttcaccatc ttggccaggc tggctctgaa ctctaact 879
 cgtaatcctc ccacctcggc ctcccaaagt gctgggatta caggcgtgag ccacatgcc 939
 tggctgcctt tcttgattca gatagctgag tgtttcaatc ctttttctc ttgtctaacc 999
 ctctagaaac tgcctacatt tttttttgt tttagtgggt atggttactc aaacttttgg 1059
 gtgggggggag ctggagctat agaaatatat aaagagaaga aaaacactca attccatgat 1119
 tcaagagtag ccatgttcaa ctttttgttt atttccttgc atgtagaatt tttaaaaatt 1179
 aattgatgta cctatatgtt caagggtata ttttttttat ttatcactat atatattgtt 1239
 ataatcacc cccaaatgctta tgattgaaga tttcttgaa gcatttaca cccagtgtca 1299
 gcagcagcca tctctgagta gtgggattat aacaagtgtt tgttttaca agtttctgcg 1359
 atgaaaatgt cccacatata taataaggaa aacagtgtt agaattcctc ataaacacag 1419
 cccgtgacat gcaatttatc agacctctat ttttggacat gttggagggt gccagtgata 1479
 ccctagtgc aattaaatga ggatagatac cttcccccat aaagtttctc atccatttag 1539
 gactatctgt agcaaactct tgaagtagca ttaatcaact aatattttca ggtataactt 1599
 gctacaagtg aacgtactat gatgaattta catgcttaga catttagata gttcacaatt 1659
 gtgtgctttt ctttttttga agcaagatct tgctctcttg ccagggtcgg agtgcagtgg 1719
 catgaccacg gctcagtgc ggcttgactt ccagggtcga agcaatactc gcacctcagg 1779
 ttttcagta gctgggaaaa cagggtgcga ccacaatgcc ctgctaattt ttaaaatttt 1839
 ttgcagagac gaggtctctc taagttgccc aggtgtgtct tgaacttctg gactcaagcc 1899
 atcctccac cttggcctcc cagagtgcga ggatcacagg catgagccac cacacctggc 1959
 ctactttgca ctttttaatt atgtggtaaa aggtatatat gtacataaag tatgtccttt 2019
 attcaggctt tttttctttt tttctttttt ttattttttt gagacgaagt ttttgctctt 2079
 gttgtccagg ctggagtgtg atggcatgct cttggctcac cacaacctcc gcctcccggg 2139
 ttcaagtgat tctctgcct caacctctg agtagctggg attacaggca tgcaccaaca 2199
 tgccaggctg attttgtatt tttagtagag atggggtttc tccatgttgg tcaggctggg 2259
 ctgaacact cgacctcaag tgatccgccc acctcagcct cccaaagagc taggattaca 2319

ggcatgagcc accacaccca gctcagggct tattttctta ggctagattg ccaaggggag 2379
 aattattatg tcaaagaaac tacttattgg acaggaatct gaaaaggatg tgttttggg 2439
 ccatgtgtct cccaacattg ttatttctga aaagtaaate acaacaaggc ccactcttct 2499
 cctaggacct ctgtagcct ggctcatcct gagtttctct ggataaatat tcctgagccc 2559
 tgtgccttgg aaggggaagc tctctcacag acaagcccac taaagacagt ctctcttct 2619
 ttgtgtc cac cct cag gga aga ggc gtc ctg cca agg cct ggt cag gca 2668
 gga gaa cca ggc tct gct gcc acc gag tcc cta gcc cca act caa caa 2716
 acc tga aag gtaagtaccc ccacctgctc cagactgtgg ggcagaagtt 2765
 ctacagtggc catgggacca gccacacaca ctgatcagcc cccacccatg gctggcatca 2825
 ggctctggct gggaggacat ctttgttttg ttgattaatt tgttgactcc cccccaaaag 2885
 tcaacaaatt aatcatttta aactgaatac attctgccat ggaaaaaag caggatgcaa 2945
 ttagcagatg ttgtgtggaa acacacttac tttaggtgga aggtgtctga gcaggtgaca 3005
 tttatgagac ctggctcatt tatgagccag gagcctggct gaggcctgtg gaggtggggc 3065
 atgcaggcag aggaggcagc aaggggtgaag ggcaagagtg gggatatgga gacagatggt 3125
 agcagggctt gagaggtact ccagaaagct aaggaccaa gctgcctgtg aaccctgtgg 3185
 acctggggca cagatcagca tgcaggtcac cagcagggga gtgggcctga gggccagag 3245
 agccatagct tggcaggaga taaggcagcc ccagagatgc cagcaggcag catccaggct 3305
 gcatgaccag aacgaggccc agaagagcaa ggctgccctc tcctgaggc ctggggacac 3365
 tgggaggcct gtggcggaca ggcccagct caggagggct gcgggcaccc agttccctgc 3425
 acaggggctg caggcccaga gcagatatc actggagttg ccagcccag gtggaagggt 3485
 caggctgctg gagcttgggt agggcaggca gatccccaag gggagactgt ggaccctgag 3545
 tcagacagcc tgacaccaac ctggggctcc tgctgaact ctgcagccc agtgccact 3605
 ctcaagaggc tgaggaggtc ccggccccac ttgctcctct gcggccatgg cccatgggg 3665
 ccatgaccag cgcgggagcc tccatgcctt tcccagctac caaggggatg ctgagctgtg 3725
 atgcaggaga gggatagagg gaggaagcaa gacagcatga ctccagccgc agaccttctc 3785
 ccggagatgc tgacagccct ttcttccaaa ctggcatcac acccagccgg ccaggataaa 3845
 aataaccagc tcgtcttcac cacgggctga aggatccnn nnnnnnnca cgaaaagccc 3905
 cttctgggcc tccagggaag agcataagat ctaattcttg ctttgaaatt tttttttaa 3965
 tgtgtttgaa aatgcaactt aattgtgtt tcctctctct cccacaacc tggctctgac 4025

ctcgccatct tctgtcctt gtccctcttg tctactcatt gctcctcca gga cat 4081
cat gtg agg ctc tgt aaa cca tgc aag ctt gag cca gag ccc cgc ctt 4129
tgg gtg gtg cct ggg gca ctc cca cag gtg 4159

<210> 9
<211> 23
<212> PRT
<213> Homo sapiens

<400> 9
Met Arg Leu Leu Val Leu Ser Ser Leu Leu Cys Ile Leu Leu Leu Cys
1 5 10 15
Phe Ser Ile Phe Ser Thr Glu
20

<210> 10
<211> 30
<212> PRT
<213> Homo sapiens

<400> 10
Gly Lys Arg Arg Pro Ala Lys Ala Trp Ser Gly Arg Arg Thr Arg Leu
1 5 10 15
Cys Cys His Arg Val Pro Ser Pro Asn Ser Thr Asn Leu Lys
20 25 30

<210> 11
<211> 28
<212> PRT
<213> Homo sapiens

<400> 11
Gly His His Val Arg Leu Cys Lys Pro Cys Lys Leu Glu Pro Glu Pro
1 5 10 15
Arg Leu Trp Val Val Pro Gly Ala Leu Pro Gln Val
20 25

<210> 12
<211> 11
<212> PRT
<213> Human immunodeficiency virus type 1

<400> 12
Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5 10

<210> 13
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: internalizing
domain derived from HIV tat protein

<400> 13
Gly Gly Gly Gly Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5 10 15

<210> 14
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer
corresponding to human SECS-1

<400> 14
cccaactcaa caaacctgaa a 21

52
✓
<210> 15
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer
corresponding to human SECS-1

<400> 15
gggaccactg gatgctg 17

<210> 16
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer
corresponding to murine SECS-1

<400> 16
actccggctc cttcactatg a 21

<210> 17
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
corresponding to murine SECS-1

<400> 17

atgtgggcat catcaacgct tta

23

<210> 18

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
corresponding to human SECS-1

<400> 18

aaataacata tgaaacgtcg tccagctaaa gcctggtcag gc

42

<210> 19

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
corresponding to human SECS-1

<400> 19

ggtgatggtg atggtgcacc tgtgggagtg cccc

34

<210> 20

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer
corresponding to human SECS-1

<400> 20

gtggtagtagg tagtggtagt aactatccta ggtattt

37

<210> 21

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SECS-1 antigen

<400> 21

Cys Trp Val Val Pro Gly Ala Leu Pro Gln Ile
1 5 10

<210> 22
<211> 81
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: artificial Secs-1
polypeptide sequence generated from an amino acid sequence
comparison of the human, murine, and rat Secs-1 polypeptides

<220>
<221> UNSURE
<222> (5)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (8)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (10)
<223> "Xaa" can be any naturally occurring amino acid

54 <220>
<221> UNSURE
<222> (11)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (12)
<223> "Xaa" can be either methionine or isoleucine

<220>
<221> UNSURE
<222> (14)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (17)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (18)
<223> "Xaa" can be either cysteine or serine

<220>
<221> UNSURE
<222> (19)

<223> "Xaa" can be either isoleucine or valine

<220>

<221> UNSURE

<222> (20)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (22)

<223> "Xaa" can be either serine or threonine

<220>

<221> UNSURE

<222> (25)

<223> "Xaa" can be either arginine or lysine

<220>

<221> UNSURE

<222> (26)

<223> "Xaa" can be either arginine or lysine

<220>

<221> UNSURE

<222> (27)

<223> "Xaa" can be either histidine or arginine

<220>

<221> UNSURE

<222> (31)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (32)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (33)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (34)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (36)

<223> "Xaa" can be any naturally occurring amino acid

<220>

<221> UNSURE

<222> (37)

<223> "Xaa" can be any naturally occurring amino acid or may be absent

<220>
<221> UNSURE
<222> (38)
<223> "Xaa" can be any naturally occurring amino acid or may be absent

<220>
<221> UNSURE
<222> (39)
<223> "Xaa" can be any naturally occurring amino acid or may be absent

<220>
<221> UNSURE
<222> (40)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (43)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (44)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (46)
<223> "Xaa" can be any naturally occurring amino acid

Σ 221
<220>
<221> UNSURE
<222> (47)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (48)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (49)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (50)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (51)
<223> "Xaa" can be either threonine or asparagine

<220>
<221> UNSURE

<222> (52)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (55)
<223> "Xaa" can be either asparagine or histidine

<220>
<221> UNSURE
<222> (57)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (59)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (61)
<223> "Xaa" can be either arginine or lysine

<220>
<221> UNSURE
<222> (62)
<223> "Xaa" can be any naturally occurring amino acid

824 <220>
<221> UNSURE
<222> (64)
<223> "Xaa" can be either arginine or lysine

<220>
<221> UNSURE
<222> (65)
<223> "Xaa" can be any naturally occurring amino acid or may be absent

<220>
<221> UNSURE
<222> (66)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (67)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (68)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (69)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (70)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (71)
<223> "Xaa" can be any naturally occurring amino acid

<220>
<221> UNSURE
<222> (81)
<223> "Xaa" can be either isoleucine or valine

<400> 22
Met Arg Leu Leu Xaa Leu Ser Xaa Leu Xaa Xaa Xaa Leu Xaa Leu Cys
1 5 10 15

84
Xaa Xaa Xaa Xaa Ser Xaa Glu Gly Xaa Xaa Xaa Pro Ala Lys Xaa Xaa
20 25 30

Xaa Xaa Arg Xaa Xaa Xaa Xaa Xaa Cys His Xaa Xaa Pro Xaa Xaa Xaa
35 40 45

Xaa Xaa Xaa Xaa Lys Gly Xaa His Xaa Arg Xaa Cys Xaa Xaa Cys Xaa
50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Val Val Pro Gly Ala Leu Pro Gln
65 70 75 80

Xaa
